UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

# CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

## November 1961

## Part II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

## IMPORTANT NOTICE

Annual verification is required of all mailing lists maintained to receive Government publications free. Those wishing to continue to receive PART II - FISHING INFORMATION of the CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY were advised to complete and return a request form included with the October 1961 issue. Many subscribers have already responded. Those who have not should do so immediately, either by returning the form or sending a postcard. Otherwise, we must drop you from the mailing list with this issue. Our address is given on the front page of this publication.

## SEA SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN NOVEMBER 1961


### Acknowledgments

The following organizations and stations contributed data for the November 1961 charts:

U.S. Weather Bureau, San Diego, California
U.S. Weather Bureau Ship Visitation Office, Long Beach, California
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U.S. Coast Guard, Port Hueneme Light Station, Port Hueneme, California
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Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein

Ships Frances Salman, Trolleggen, Elin Haven, Besseggen, Kongsholm and Santa Maria

Charts

Figure 1.--Mean sea surface temperatures (°F) derived from approximately 8000 observations. Squares show temperatures at weather-ship stations. Numerals on shore are temperatures at coastal and light stations.

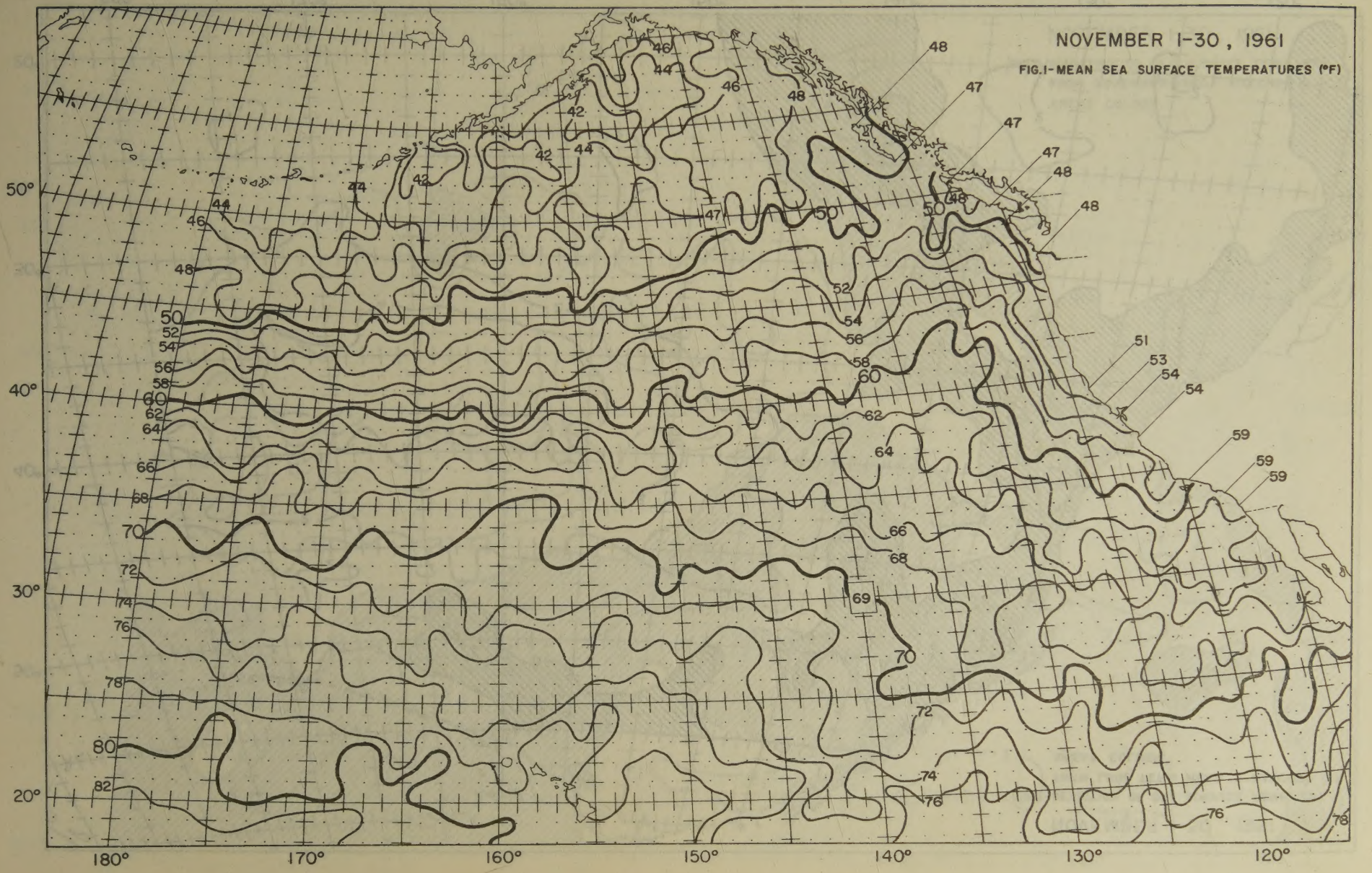
Figure 2.--Deviation of sea surface temperatures (°F) from long term mean charts of H.O. 225. Hatched areas are colder than mean.

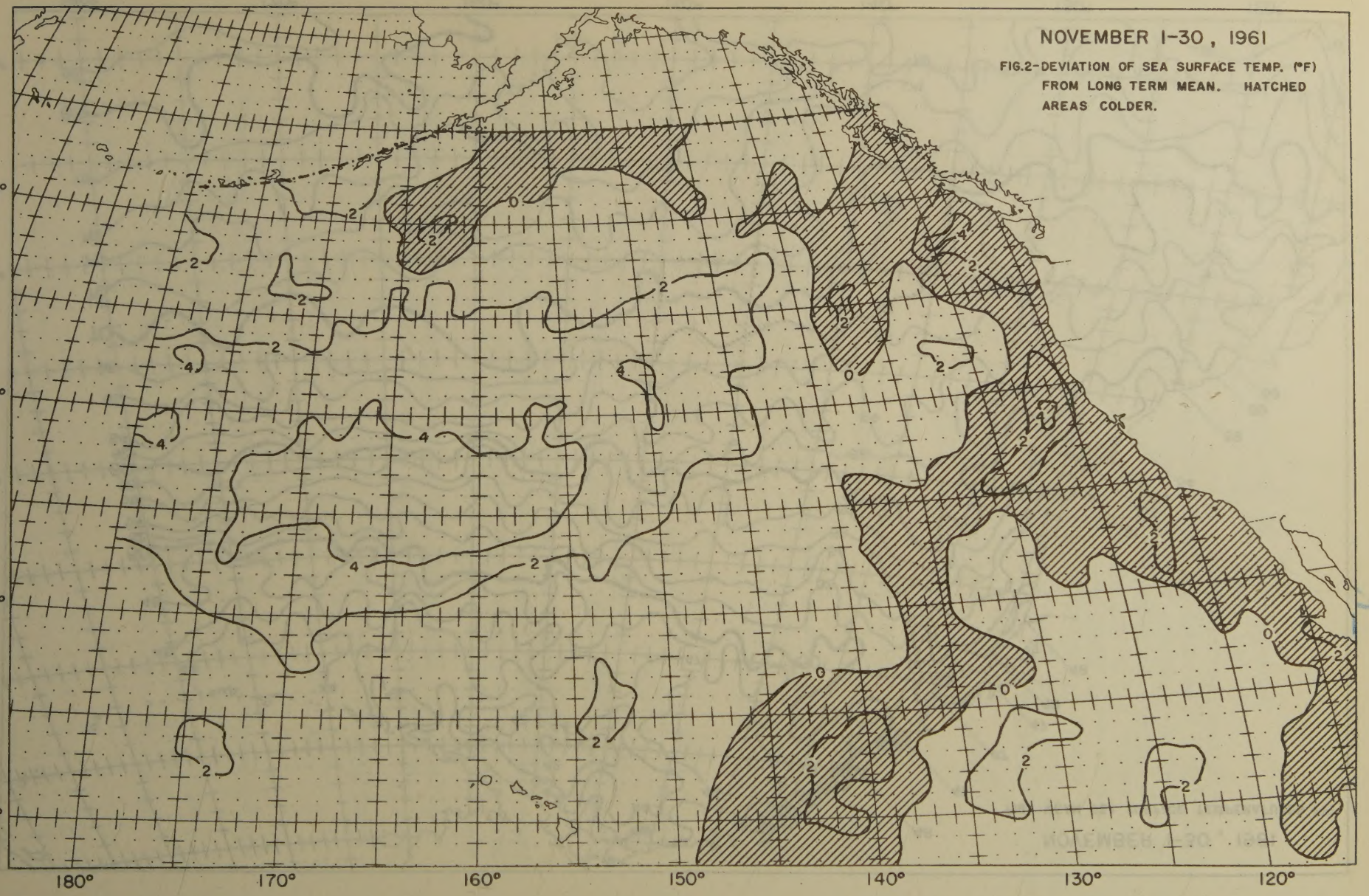
Figure 3.--Deviation of sea surface temperatures (°F) from those of November 1960. Hatched areas are colder than 1960.

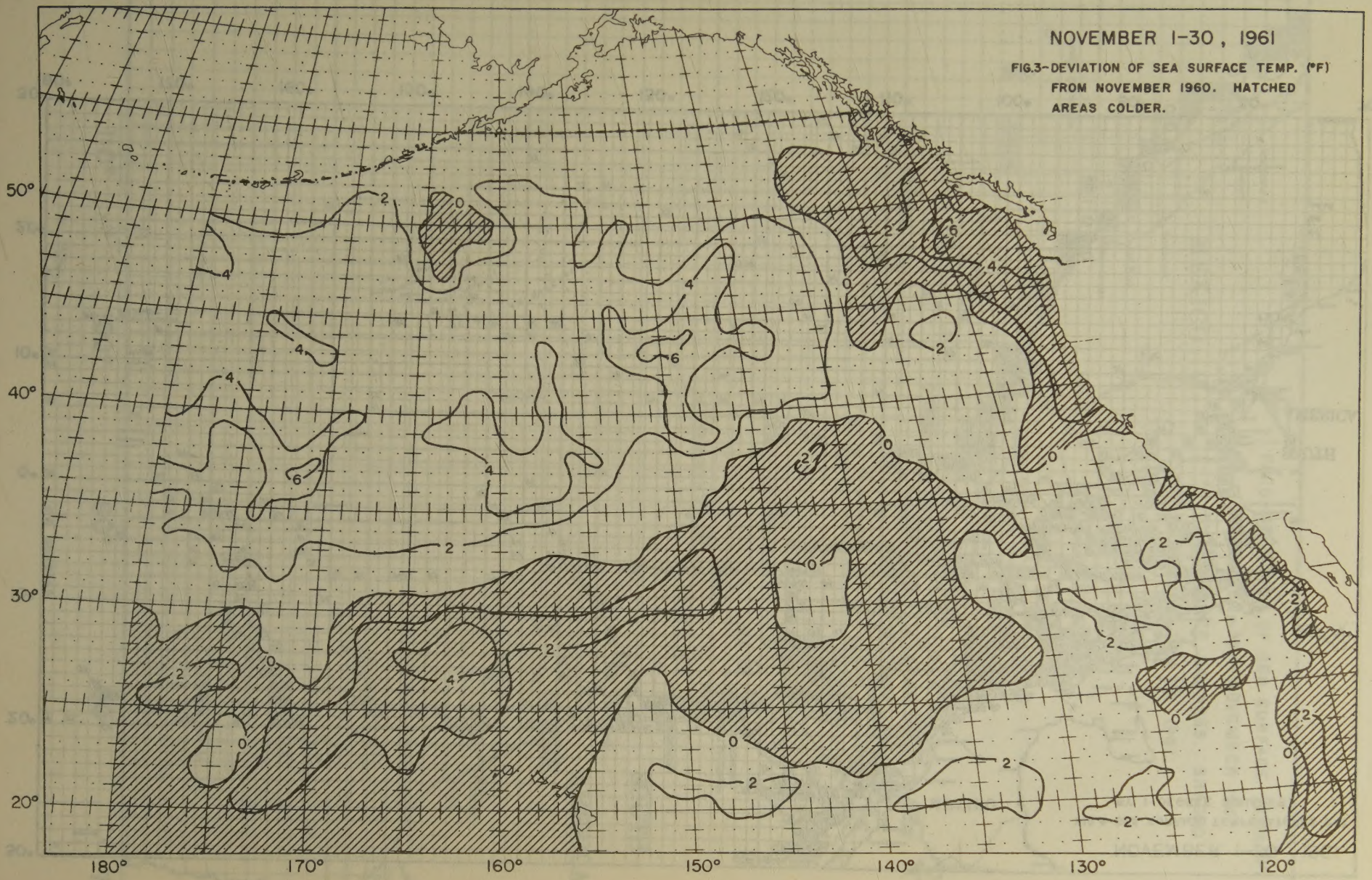
Figure 4.--Sea surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal and light stations.

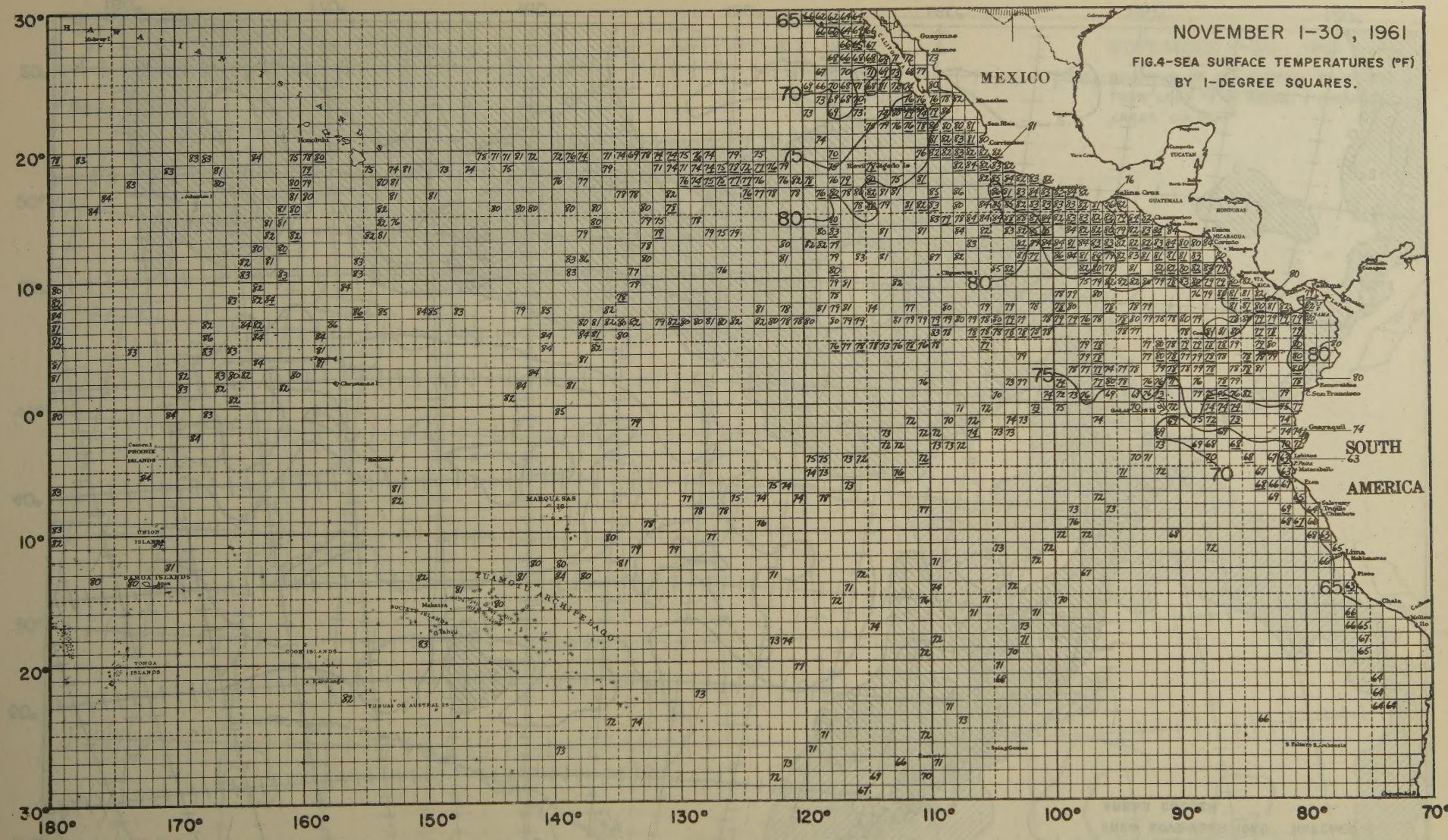
Figure 5.--Deviation of sea surface temperatures (°F) November 1961 - November 1960 by 1-degree squares. Shaded areas colder in 1961.

James A. Renner
Fishery Biologist (Research)


NOVEMBER 1-30, 1961
FIG.1-MEAN SEA SURFACE TEMPERATURES (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


NOVEMBER 1-30, 1961
FIG.2-DEVIATION OF SEA SURFACE TEMP. (°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


NOVEMBER 1-30, 1961
FIG.3-DEVIATION OF SEA SURFACE TEMP. (°F) FROM NOVEMBER 1960. HATCHED AREAS COLDER.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


NOVEMBER 1-30, 1961
FIG.4-SEA SURFACE TEMPERATURES (°F)
BY 1-DEGREE SQUARES.
MEXICO
SOUTH
AMERICA
HAWAIIAN ISLANDS
PHOENIX ISLANDS
UNION ISLANDS
SAMOA ISLANDS
MARQUESAS
TUAMOTU ARCHIPELAGO
SOCIETY ISLANDS
COOK ISLANDS
TONGA ISLANDS
TUBUAI OR AUSTRAL IS.
30°
20°
10°
0°
10°
20°
30°
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°

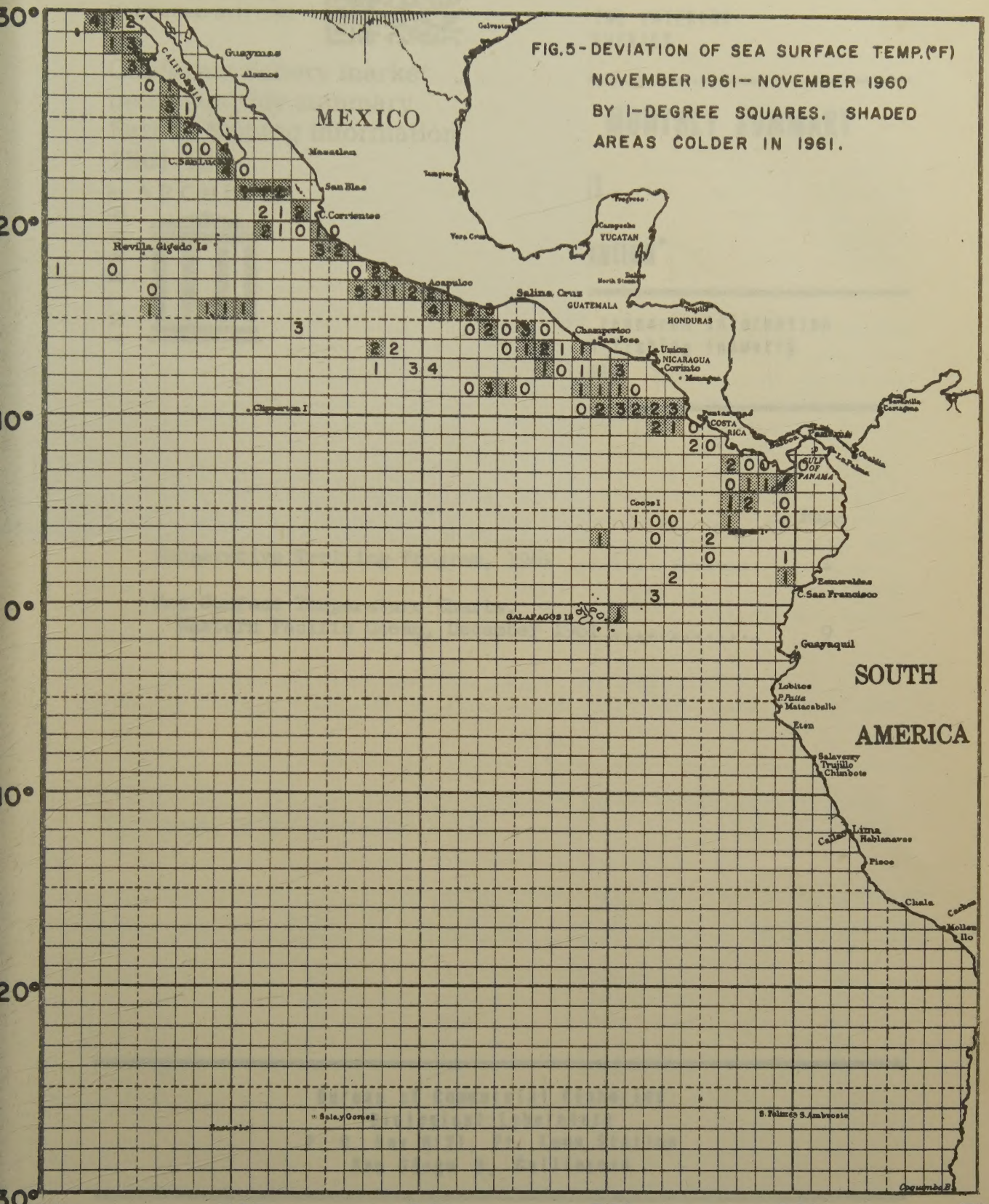


FIG. 5 - DEVIATION OF SEA SURFACE TEMP. (°F)
NOVEMBER 1961 – NOVEMBER 1960
BY 1-DEGREE SQUARES. SHADED
AREAS COLDER IN 1961.
MEXICO
SOUTH
AMERICA
GUATEMALA
HONDURAS
NICARAGUA
COSTA
RICA
YUCATAN
GULF
OF
PANAMA
GALAPAGOS Is
Guaymas
Mazatlan
San Blas
C. Corrientes
Acapulco
Salina Cruz
Champerico
San Jose
Le Unica
Corinto
Managua
Cocos I
Guayaquil
Lobitos
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Arequipa
Tampico
Veracruz
Campeche
Progreso
Galveston
Revilla Gigedo Is
Clipperton I
Esmeraldas
C. San Francisco
Sala y Gomez
S. Felix
S. Ambrosio
120°
110°
100°
90°
80°
70°
30°
20°
10°
0°
10°
20°
30°